

I claim:

1. An optical compensatory sheet comprising a transparent support and an optically anisotropic layer, wherein
5 the optically anisotropic layer is formed from liquid crystal molecules and monomers having four or more double bonds, said monomers being polymerized to form a cross-linked polymer in the optically anisotropic layer.
- 10 2. The optical compensatory sheet as defined in claim 1, wherein the monomer is an ester of a polyol having four or more hydroxyl groups with an acrylic acid or a methacrylic acid.
- 15 3. The optical compensatory sheet as defined in claim 1, wherein the monomers have four to twenty double bonds.
- 20 4. The optical compensatory sheet as defined in claim 1, wherein the monomers are used in an amount of 0.1 to 50 wt.% based on an amount of the liquid crystal molecules.
- 25 5. The optical compensatory sheet as defined in claim 1, wherein the liquid crystal molecules are discotic liquid crystal molecules.
- 30 6. The optical compensatory sheet as defined in claim 5, wherein each of the discotic liquid crystal molecules has a double bond, said discotic liquid crystal molecules and the monomers being co-polymerized in the optically anisotropic layer.

7. The optical compensatory sheet as defined in
claim 1, wherein an orientation layer is provided between
the transparent support and the optically anisotropic layer.

5 8. The optical compensatory sheet as defined in
claim 7, wherein the orientation layer comprises a polymer
having double bonds at side chains, said polymer in the
orientation layer and the monomers in the optically anisot-
ropic layer being co-polymerized along an interface between
10 the orientation layer and the optically anisotropic layer.

9. The optical compensatory sheet as defined in
claim 1, wherein the transparent support has a retardation
values in plane in the range of 0 to 50 nm and a retarda-
15 tion value along a thickness direction in the range of 70
to 400 nm.

10. The optical compensatory sheet as defined in
claim 1, wherein the transparent support is a cellulose
20 acetate film comprising cellulose acetate having an acetic
acid content in the range of 59.0 to 61.5%.

11. The optical compensatory sheet as defined in
claim 10, wherein the cellulose acetate film contains an
25 aromatic compound having two or more aromatic rings in an
amount of 0.01 to 20 weight parts based on 100 weight parts
of cellulose acetate.

12. The optical compensatory sheet as defined in
30 claim 10, wherein the cellulose acetate film is formed by
casting two or more cellulose acetate solutions simultane-
ously.

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13. The optical compensatory sheet as defined in
claim 10, wherein the cellulose acetate film is formed from
a solution of cellulose acetate in a solvent selected from
a group consisting of an ether having 2 to 12 carbon atoms,
5 a ketone having 3 to 12 carbon atoms or an ester having 2
to 12 carbon atoms.

14. A liquid crystal display comprising two polarizing plates, a liquid crystal cell provided between the
10 plates, and at least one optical compensatory sheet placed between the cell and at least one of the plates, said optical compensatory sheet comprising a transparent support and an optically anisotropic layer, wherein the optically anisotropic layer formed from liquid crystal molecules and
15 monomers having four or more double bonds, said monomers being polymerized to form a polymer in the optically anisotropic layer.

15. The liquid crystal display as defined in claim 13,
20 wherein the transparent support of the optical compensatory sheet functions as a transparent protective film of the polarizing plate.

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